

Notice of Allowability

Application No.

09/823,052

Examiner

James S. Wozniak

Applicant(s)

AGICHTEIN ET AL.

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE filed on 2/26/2007.
2. ☒ The allowed claim(s) is/are 61-87 (now claims 1-27).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Response to Amendment

1. In response to the office action from 1/26/2007, the applicant has submitted a request for continued examination, filed 2/7/2007, amending independent claims 61 and 79, while arguing to traverse the art rejection based on the amended limitations (*Amendment, Pages 10-12*). In response to the amended claims and for the below reasons for allowance, claims 61-87 are allowable over the prior art of record.

Allowable Subject Matter

2. **Claims 61-87** are allowable over the prior art of record.

3. The following is an examiner's statement of reasons for allowance:

With respect to **Claim 61**, the prior art of record fails to explicitly teach or fairly suggest, either individually or in combination, a method for retrieving answers to questions from an information retrieval system wherein: questions are classified into a plurality of question types based on a question phrase of the question, candidate query transformations are generated for the question types based on question phrase-answer pairs as set forth in claim 61, the transformations are evaluated by: executing the query transformations in an information retrieval (IR) search engine (*specification, Page 12, Lines 20-21*), generating result

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subdocuments from each IR system document result (*specification, Page 13, Lines 5-13*), calculating a score for each result using a weighted algorithm to correlate the result subdocuments with the answers in the question-answer pairs (*specification, Page 13, Line 14-Page 14, Line 11*), and updating the scores based on a similarity of the overall document results with the answers in the question phrase-answer pairs (*specification, Page 15, Line 2-11*); and the top ranking transformations are selected based on the evaluation process (*specification, Page 15, Lines 19-20*).

With respect to **Claim 79**, the prior art of record fails to explicitly teach or fairly suggest, either individually or in combination, a document retrieval method, wherein a query is received, the query is classified according to a question type, and a transformation is applied to the query for document retrieval, wherein the transformation has been generated using the above noted method described in claim 61.

The dependent claims further limit independent claims containing allowable subject matter, and thus, also contain allowable subject matter.

Pertinent prior art:

Although Brown et al (*U.S. Patent: 6,665,666*) shows that it is well-known in the prior art to classify a question based on type (*Col. 4, Lines 63-65; and Col. 5, Lines 11-26*), generate a query transformation based on question type in the form of a question/answer token that describes an answer (*Col. 9, Line 10- Col. 12, Line 38*), execute a set of question/answer tokens in an information retrieval system, and score document results associated with the QA tokens (*Col. 15, Line 64- Col. 16, Line 60*), Brown does not evaluate the performance of candidate query transformations using the process recited in claims 61 and 70 featuring: generating result

subdocuments from each IR system document result, calculating a score for each result using a weighted algorithm to correlate the result subdocuments with the answers in the question-answer pairs, and updating the scores based on a similarity of the overall document results with the answers in the question phrase-answer pairs.

Although Kupiec (*U.S. Patent: 5,696,962*) shows that it is well-known in the prior art to classify a question based on a type phrase that indicates a possible answer (*Col. 30, Lines 46-63*) and display ranked answer hypotheses accompanied by a question (*Col. 23, Line 60- Col. 25, Line 65*), the process disclosed by Kupiec does not teach generating candidate query transformations or evaluating the performance of said transformations using the process recited in claims 61 and 70 featuring: generating result subdocuments from each IR system document result, calculating a score for each result using a weighted algorithm to correlate the result subdocuments with the answers in the question-answer pairs, and updating the scores based on a similarity of the overall document results with the answers in the question phrase-answer pairs.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

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Bradford (*U.S. Patent: 6,678,679*)- discloses a method for refining data queries, but does not teach evaluating the performance of refined data queries using the process recited in claims 61 and 79.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached at (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James S. Wozniak
4/19/2007


PATRICK N. EDOUARD
SUPERVISORY PATENT EXAMINER